

**ABSTRACT OF THE DISCLOSURE**

The present invention generally provides an apparatus and a method for inspecting a substrate in a processing system. In one aspect, a pair of light sources is used in conjunction with an optical receiving device, such as a camera having a CCD, to illuminate and inspect a substrate for various optical signatures. The substrate signatures are then used to generate images of obstructions in three dimensions (3-D) for further analysis. In one embodiment, the substrate is scanned in two or more directions with a first light source and then scanned in two or more directions with a second light source. A receiver captures the reflected and/or scattered signals from sources comprising two or more different images. The light illumination from the first and second light sources impinges on substrate surface obstructions from two differing angles (i.e. perspectives). Therefore, the image from the first light source obtains information pertaining to one side of obstructions while the image from the second light source offers information pertaining to the opposite side of the obstruction. Differentiation between the images is provided by either different perspective angles and/or different optical filtering configurations.